

Appendix 1B. Special Status Species Occurrences within the Project Area

Common Name	Scientific Name	Status			Associated Habitat and/or Flowering Period	Occurrence within the Project Area						
		Federal	State	CNPS		Segments						
						1	2	3	4	5	6	7
PLANTS												
Large-flowered fiddleneck	<i>Amsinckia grandiflora</i>	E	E	1B	Cismontane woodland, annual grassland in various soils; Apr-May	NL	NL	NL	NL	NL	NL	NL
Pallid manzanita	<i>Arctostaphylos pallida</i>	T	E	1B	Chaparral, Foothill Woodland, Mixed Evergreen Forest; Dec-Mar	NL	NL	NL	NL	NL	NL	NL
Tiburon paintbrush	<i>Castilleja affinis</i> ssp. <i>neglecta</i>	E	T	1B	Serpentine soils in Marin, Napa, and Santa Clara counties; Apr-Jun	NL	NL	NL	NL	NL	NL	NL
Suisun thistle	<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>	E	-	1B	Tidal marsh and seasonal alkali marsh habitats in the vicinity of Suisun Bay and Grizzly Bay ; July-Sept	P	P	P	P	NL	NL	NL
Soft bird's-beak	<i>Cordylanthus mollis</i> ssp. <i>mollis</i>	E	R	1B	Brackish marsh, often found with <i>Distichlis</i> , <i>Salicornia</i> , <i>Frankenia</i> , etc.; July-Sept	P	P	P	P	NL	NL	NL
Palmate-bracted bird's-beak	<i>Cordylanthus palmatus</i>	E	E	1B	Chenopod scrub, valley and foothill grassland on Pescadero or similar alkali soils; May-Oct	NL	NL	NL	P	NL	NL	NL
Contra Costa wallflower	<i>Erysimum capitatum</i> ssp. <i>angustatum</i>	E	E	1B	Inland dunes; stabilized dunes of sand and clay near Antioch along San Joaquin River. Endemic to Contra Costa County; Mar-July	NL	NL	NL	NL	NL	NL	NL
Boggs Lake hedge-hyssop	<i>Gratiola heterosepala</i>	-	E	1B	Seasonal marsh, vernal pools	NL	NL	NL	P	P	P	NL
Santa Cruz tarplant	<i>Holocarpha macradenia</i>	T	E	1B	Coastal prairie, grasslands; often clay; Jun-Oct	NL	NL	NL	NL	NL	NL	NL
Contra Costa goldfields	<i>Lasthenia conjugens</i>	E	-	1B	Cismontane woodland, alkaline playas, valley and foothill grassland, vernal pools; March-June	NL	P	K	K	K	NL	NL
Mason's lilaeopsis	<i>Lilaeopsis masonii</i>	SC	R	1B	Freshwater and brackish marshes and riparian scrub, in muddy or silty soil formed through river deposition or river bank erosion; Apr-Oct	K	P	P	P	NL	NL	NL
Few-flowered navarretia	<i>Navarretia leucocephala</i> spp. <i>pauciflora</i>	E	T	1B	Vernal pools on volcanic ash flows; elevation: 400-850 meters; May-June	NL	NL	NL	NL	NL	NL	NL
Colusa grass	<i>Neostapfia colusana</i>	T	E	1B	Vernal pools; May-Aug	NL	NL	NL	P	P	P	NL

Appendix 1B. Special Status Species Occurrences within the Project Area (cont.)

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		Federal	State	CNPS		Segments						
						1	2	3	4	5	6	7
Antioch Dunes evening-primrose	<i>Oenothera deltoides</i> ssp. <i>howellii</i>	E	E	1B	Interior dunes; river bluffs and sand dunes east of Antioch. Known only from Contra Costa and Sacramento Counties; March-Sept	NL	NL	NL	NL	NL	NL	NL
Rock sanicle	<i>Sanicula saxatilis</i>	SC	R	1B	Rocky soils in broadleaved upland forest and chaparral. Elevation: 620-1,175 meters	NL	NL	NL	NL	NL	NL	NL
Showy Indian clover	<i>Trifolium amoenum</i>	E	-	1B	Wet swales, grasslands and grassy hillsides; occasionally found on serpentine soils; Apr-Jun	NL	NL	NL	NL	NL	NL	NL
Solano grass	<i>Tuctoria mucronata</i>	E	E	1B	Large vernal pools and vernal lakes, valley and foothill grassland; Apr-Aug	NL	NL	NL	P	P	P	NL
Mt. Diablo manzanita	<i>Arctostaphylos auriculata</i>	-	-	1B	Chaparral; Jan-Mar	NL	NL	NL	NL	NL	NL	NL
Contra Costa manzanita	<i>Arctostaphylos manzanita</i> spp. <i>laevigata</i>	-	-	1B	Chaparral; Jan-Feb	NL	NL	NL	NL	NL	NL	NL
Suisun Marsh aster	<i>Aster lentus</i>	SC	-	1B	Brackish and freshwater marshes, most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. Endemic to the Sac/San Joaquin River Delta; Aug-Nov	P	K	K	P	NL	NL	NL
Ferris' milk-vetch	<i>Astragalus tener</i> var. <i>ferrisiae</i>	-	-	1B	Meadows and seeps, valley and foothill grassland areas; Apr-May	NL	P	NL	P	K	P	NL
Alkali milk-vetch	<i>Astragalus tener</i> var. <i>tener</i>	-	-	1B	Playas, adobe clay grasslands, vernal pools; Mar-Jun	NL	P	NL	P	K	P	NL
Heartscale	<i>Atriplex cordulata</i>	SC	-	1B	Chenopod scrub, valley and foothill grassland, meadows. Alkaline flats and scalds in the Central Valley, sandy soils; April-Oct	NL	P	P	P	P	P	NL
Brittlescale	<i>Atriplex depressa</i>	-	-	1B	Chenopod scrub, playas, valley & foothill grassland, meadows, and vernal pools. Usually in alkali scalds or alkali clay in meadows or annual grassland; May-Oct	NL	P	P	P	P	P	NL

Appendix 1B. Special Status Species Occurrences within the Project Area (cont.)

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		Federal	State	CNPS		Segments						
						1	2	3	4	5	6	7
San Joaquin saltbush	<i>Atriplex joaquiniana</i>	SC	-	1B	Chenopod scrub, valley and foothill grassland, alkali meadows. In seasonal alkaline wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc; Apr-Sept	NL	P	P	P	P	P	NL
Vernal pool smallscale	<i>Atriplex persistens</i>	SC	-	1B	Vernal pools on alkaline soils; Jul-Oct	NL	NL	P	P	P	P	NL
Big-scale balsamroot	<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	-	-	1B	Valley and foothill grassland, chaparral, cismontane woodland/ sometimes serpentine; March-June	NL	P	P	P	P	P	NL
Big tarplant	<i>Blepharizonia plumosa</i> ssp. <i>plumosa</i>	-	-	1B	Dry hills and plains in annual grassland. Clay to clay loam soils; usually on slopes and often in burned areas; July-Oct	P	P	P	P	NL	NL	NL
Mt. Diablo fairy-lantern	<i>Calochortus pulchellus</i>	-	-	1B	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland; Apr-June	NL	NL	NL	NL	NL	NL	NL
Salt marsh owl's clover	<i>Castilleja ambigua</i> ssp. <i>ambigua</i>	SC	-	-	Coastal bluff, grassland; bloom period unknown	P	P	P	P	P	P	NL
Congdon's tarplant	<i>Centromadia [Hemizonia] parryi</i> ssp. <i>congdonii</i>	SC	-	1B	Valley and foothill grassland; June-Nov	P	P	P	P	P	P	NL
Hispid bird's beak	<i>Cordylanthus mollis</i> ssp. <i>hispidus</i>	SC	-	1B	Meadows and seeps, playas, valley and foothill grassland; Jun-Sep	P	P	P	NL	NL	NL	NL
Mt. Diablo bird's-beak	<i>Cordylanthus nidularius</i>	SC	-	1B	Chaparral, coastal scrub, valley and foothill grassland; on dry exposed clay or sandy substrate; Apr-June	NL	NL	NL	NL	NL	NL	NL
Hospital canyon larkspur	<i>Delphimium californicum</i> ssp <i>interius</i>	-	-	1B	Chaparral, cismontane woodland; Apr-June	NL	NL	NL	NL	NL	NL	NL
Recurved larkspur	<i>Delphinium recurvatum</i>	SC	-	1B	Chenopod scrub, valley and foothill grassland, cismontane woodland. On alkaline soils; often in valley saltbush or valley chenopod scrub; Mar-May	P	P	P	P	P	P	NL
Western leatherwood	<i>Dirca occidentalis</i>	-	-	1B	Chaparral, cismontane woodland, coastal scrub; Mar-July	NL	NL	NL	NL	NL	NL	NL
Dwarf downingia	<i>Downingia pusilla</i>	-	-	2	Vernal pools in valley and foothill grasses; Mar- May	NL	P	P	P	P	P	NL
Mt. Diablo buckwheat	<i>Eriogonum truncatum</i>	-	-	1A	Chaparral, coastal scrub, valley and foothill grasslands; Apr-Nov	NL	NL	NL	NL	NL	NL	NL

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						1	2	3	4	5	6	7
Fragrant fritillary	<i>Fritillaria liliacea</i>	SC	-	1B	Coastal prairie, coastal scrub, grassland; often serpentinite; Feb-Apr	P	P	P	P	P	P	NL
Adobe lily	<i>Fritillaria pluriflora</i>	SC	-	1B	Chaparral, cismontane woodland, foothill grassland; Feb-Apr	NL	NL	NL	NL	NL	NL	NL
Diablo helianthella	<i>Helianthella castanea</i>	SC	-	1B	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland; Apr-Jun	NL	P	NL	NL	NL	NL	NL
Hogwallow starfish	<i>Hesperevax caulescens</i>	-	-	4	Moist clay soils associated with valley and foothill grasslands; Mar-Jun	NL	P	P	P	K	P	NL
Brewer's western flax	<i>Hesperolinon breweri</i>	SC	-	1B	Chaparral, cismontane woodland, and valley and foothill grassland; often in rocky serpentine soil in chaparral and grassland; May-July	NL	NL	NL	NL	NL	NL	NL
Rose-mallow	<i>Hibiscus lasiocarpus</i>	-	-	2	Moist, freshwater-soaked river banks and low peat islands in sloughs; in California, know from the Delta watershed; Aug-Sept	NL	P	P	P	P	P	NL
Carquinez goldenbush	<i>Isocoma arguta</i>	SC	-	1B	Valley and foothill grassland in alkaline soils, flats, and lower hills. On benches near drainages and on tops and sides of mounds in swale habitat. Known only from Contra Costa and Solano Counties; Aug-Dec.	P	P	P	P	K	P	NL
Northern California black walnut	<i>Juglans hindsii</i>	SC	-	1B	Riparian scrub and woodland; Apr-May	NL	NL	NL	NL	NL	P	NL
Ahart's dwarf rush	<i>Juncus leiospermus</i> var. <i>ahartii</i>	SC	-	1B	Margins of vernal pools in valley and foothill grassland on east side of Sacramento Valley; March-May	NL	NL	NL	NL	NL	NL	NL
Delta tule pea	<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	SC	-	1B	Freshwater and brackish marshes, often found with <i>Typha</i> spp., <i>Aster lentus</i> , <i>Rosa californica</i> , <i>Juncus</i> spp., and <i>Scirpus</i> spp. Usually on marsh and slough edges. Most of distribution limited to Sacramento/San Joaquin River Delta; May-June.	P	P	P	P	NL	NL	NL

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Delta mudwort	<i>Limosella subulata</i>	-	-	2	Riparian scrub, freshwater marsh, brackish marsh; usually on mud banks of the Delta on marshy or scrubby riparian association, often with <i>Lilaeopsis masonii</i> ; May-Aug	P	P	P	P	NL	NL	NL
Legenere	<i>Legenere limosa</i>	SC	-	1B	Vernal pools; April-June	NL	NL	NL	P	P	P	NL
Heckard's pepper-grass	<i>Lepidium latipes</i> var. <i>heckardii</i>	-	-	1B	Valley and foothill grasslands; alkali; March-May	NL	P	P	P	K	P	NL
Showy madia	<i>Madia radiata</i>	-	-	1B	Valley and foothill grassland, cismontane woodland, chenopod scrub; mostly on adobe clay in grassland and among shrubs; Mar-May	P	P	P	P	P	P	NL
Hall's bush mallow	<i>Malacothamnus hallii</i>	-	-	1B	Chaparral, coastal scrub; May-Sept	NL	NL	NL	NL	NL	NL	NL
Little mousetail	<i>Myosurus minimus</i> ssp. <i>apus</i>	SC	-	3	Vernal pools and valley and foothill grassland; March-	NL	P	P	P	P	P	NL
Mount Diablo phacelia	<i>Phacelia phacelioides</i>	SC	-	1B	Chaparral, cismontane woodland; Apr-May	NL	NL	NL	NL	NL	NL	NL
Bearded popcorn flower	<i>Plagiobothrys hystriculus</i>	-	-	1A	Valley and foothill grasslands, vernal pools; Apr-May	NL	NL	NL	NL	NL	NL	NL
Sanford's arrowhead	<i>Sagittaria sanfordii</i>	SC	-	1B	Freshwater marsh on east side of Central Valley; May-Oct	NL	NL	NL	NL	NL	NL	NL
Rayless ragwort	<i>Senecio aphanactis</i>	-	-	2	Chaparral, cismontane woodland, coastal scrub; Jan-Apr	NL	NL	NL	NL	NL	NL	NL
Most beautiful jewelflower	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	SC	-	1B	Chaparral, grassland; serpentine; Apr-Jun	NL	NL	NL	NL	NL	NL	NL
Mt. Diablo jewelflower	<i>Streptanthus hispidus</i>	-	-	1B	Chaparral, valley and foothill grassland; March-June	NL	NL	NL	NL	NL	NL	NL
Saline clover	<i>Trifolium depauperatum</i> var. <i>hydrophilum</i>	-	-	1B	Moist, alkaline soils associated with vernal pools and valley grasslands; Apr-Jun	P	K	P	P	P	P	NL
Caper-fruited tropidocarpum	<i>Tropidocarpum capparideum</i>	SC	-	1A	Alkaline hills in valley and foothill grassland; Mar-Apr	NL	NL	NL	NL	NL	NL	NL

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						1	2	3	4	5	6	7
INVERTEBRATES												
Antioch Dunes anthicid beetle	<i>Anthicus antiochensis</i>	SC	-	NA	This species is associated with sand dunes and is only known to occur at Antioch Dunes near Antioch, Contra Costa County.	NL	NL	NL	NL	NL	NL	NL
Sacramento anthicid beetle	<i>Anthicus sacramento</i>	SC	-	NA	Sand dunes and sandbars within riparian areas of the Sacramento-San Joaquin Delta	NL	NL	NL	NL	NL	NL	NL
Midvalley fairy shrimp	<i>Branchinecta mesovallensis</i>	SC	-	NA	Vernal pools in grasslands in Sacramento, Solano, Contra Costa, Madera, Merced and Fresno Counties	P	P	P	P	K	P	NL
California clam shrimp	<i>Cyzicus californicus</i>	-	-	NA	Vernal pools	P	K	K	K	K	P	NL
Ricksecker's water scavenger beetle	<i>Hydrochara rickseckeri</i>	SC	-	NA	Freshwater habitats, restricted to the San Francisco Bay Area	P	P	P	P	NL	NL	NL
Curved-foot hygrotus diving beetle	<i>Hygrotus curvipes</i>	SC	-	NA	Shallow water pools; known only from a shallow muddy pool in Oakley, Contra Costa County.	NL	NL	NL	NL	NL	NL	NL
California linderiella	<i>Linderiella occidentalis</i>	SC	-	NA	Vernal pools	K	K	K	K	K	K	NL
San Francisco lacewing	<i>Nothochrysa californica</i>	SC	-	NA	Freshwater streams	P	P	P	P	NL	NL	NL
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	E	-	NA	Found in large, turbid pools in the northern 2/3 or the Central Valley, inhabit astatic pools located in swales formed by old, braided alluvium, filled by winter/spring rains, until June.	NL	NL	NL	P	P	P	NL
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	E	-	NA	Vernal pools and swales	P	P	P	P	NL	NL	NL
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T	-	NA	Vernal pools	P	P	P	K	K	P	NL
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	T	-	NA	Elderberry shrubs	P	P	K	P	P	P	P
Delta green ground beetle	<i>Elaphrus viridis</i>	T	-	NA	Margins of vernal pools in grassland areas between Jepson prairie and Travis AFB.	NL	NL	NL	P	P	NL	NL
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	E	-	NA	Seasonal pools in unplowed grassland with old alluvial soils underlain by hardpan or in sandstone depressions	P	P	P	K	K	P	NL

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Callippe silverspot butterfly	<i>Speyeria callippe callippe</i>	E	-	NA	Grassy hillsides, chaparral, and oak woodland with native forbs; host plant a native violet (<i>Viola pedunculata</i>)	NL	NL	NL	NL	NL	NL	NL
California freshwater shrimp	<i>Syncaris pacifica</i>	E	E	NA	Low elevation streams with moderate to heavy riparian cover. Endemic to Marin, Napa, and Sonoma Counties.	NL	NL	NL	NL	NL	NL	NL
AMPHIBIANS												
California red-legged frog	<i>Rana aurora draytonii</i>	T	SC	NA	Lowlands and foothills with deep water remaining for at least 11 weeks; water source is usually associated with abundant emergent and/or shoreline vegetation	P	P	P	NL	NL	NL	NL
Foothill yellow-legged frog	<i>Rana boylei</i>	SC	SC	NA	Partly shaded, shallow streams and riffles with cobble size or larger rocky substrate; mostly in foothills	NL	NL	NL	NL	NL	NL	NL
Western spadefoot	<i>Scaphiopus hammondi</i>	SC	SC	NA	Quiet streams and temporary pools in grassland, open chaparral, and pine-oak woodlands	P	P	P	P	P	P	NL
California tiger salamander	<i>Ambystoma californiense</i>	C	SC	NA	Annual grassland and valley-foothill hardwood habitats, vernal pools and other seasonal water sources adjacent to underground refuges.	P	P	P	P	P	P	NL
REPTILES												
Western pond turtle	<i>Clemmys marmorata marmorata</i>	SC	SC	NA	Permanent or nearly permanent water in a variety of habitats, need basking sites such as partially submerged logs or rocks and suitable upland habitat for egg laying.	P	K	P	P	K	P	NL
Silvery legless lizard	<i>Anniella pulchra pulchra</i>	SC	SC	NA	Found primarily in areas with sandy or loose organic soils or where there is plenty of leaf litter	NL	NL	NL	NL	NL	NL	NL
California horned lizard	<i>Phrynosoma coronatum frontale</i>	SC	SC	NA	Inhabits open country, especially sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats	NL	NL	NL	NL	NL	NL	NL

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Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	T	T	NA	Valley-foothill hardwood habitat of the coast between North San Francisco Bay and Monterey	NL	NL	NL	NL	NL	NL	NL
Giant garter snake	<i>Thamnophis gigas</i>	T	T	NA	Freshwater marsh, streams, drainage canals, irrigation ditches	NL	NL	NL	P	K	P	NL
FISH												
Delta Smelt	<i>Hypomesus transpacificus</i>	T	T	NA	Sacramento-San Joaquin Delta, Suisun Bay, San Pablo Bay, river channels and sloughs	K	P	P	P	NL	NL	NL
Green sturgeon	<i>Acipenser medirostris</i>	SC	SC	NA	Rivers and estuaries	K	NL	NL	NL	NL	NL	NL
River lamprey	<i>Lampetra ayresi</i>	SC	SC	NA	San Joaquin-Sacramento Delta and northward, including the Sacramento River	K	P	P	P	P	P	NL
Pacific lamprey	<i>Lampetra tridentata</i>	SC	-	NA	Estuaries, rivers and creeks with fine gravel substrates	K	P	P	P	P	P	NL
Longfin smelt	<i>Spirinchus thaleichthys</i>	SC	SC	NA	Moderately saline estuaries and lower reaches of rivers	K	P	P	P	NL	NL	NL
Central Valley steelhead	<i>Oncorhynchus mykiss</i>	T	SC	NA	Delta, Suisun Bay and associated marshes, San Francisco Bay west to the Golden Gate bridge is designated as suitable habitat.	K	P	P	P	P	P	NL
Sacramento River Winter-Run Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	E	E	NA	Sacramento River from Keswick Dam (near Redding) south to Chipps Island, then west through Carquinez Strait, San Pablo Bay and San Francisco Bay	K	P	P	P	P	P	NL
Central Valley Spring-Run Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	T, PE	T	NA	Central Valley rivers and their tributaries, west to the Pacific Ocean	K	P	P	P	P	P	NL
Central Valley Fall/Late-Fall Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	C	SC	NA	Central Valley rivers and their tributaries, west to the Pacific Ocean	K	P	P	P	P	P	NL
Sacramento Splittail	<i>Pogonichthys macrolepidotus</i>	T	SC	NA	Fresh water from lower Sacramento and San Joaquin rivers down to Montezuma Slough (may extend to the mouth of Napa River at San Pablo Bay)	K	P	P	P	NL	K	NL

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BIRDS												
California brown pelican	<i>Pelecanus occidentalis</i>	E	E, FP	NA	Nests on coastal islands, lacking ground predators; roost on piers, bouys and other structures	NL	NL	NL	NL	NL	NL	NL
Aleutian Canada goose	<i>Branta canadensis leucopareia</i>	D	-	NA	Do not nest in California. Winter habitat includes agricultural croplands and pastures.	NL	P	P	P	P	P	NL
White-faced ibis	<i>Plegadis chihi</i>	SC	SC	NA	Nests in a few isolated areas within the Central Valley; places nests within dense stands of fresh water emergent vegetation near shallow water or muddy fields for foraging; winters mainly in the San Joaquin Valley and Imperial Valley.	NL	NL	P	P	P	P	NL
Greater sandhill crane	<i>Grus canadensis tabida</i>	-	T, FP	NA	Breeds in northern California plateau. Winters in low elevation wetlands and agricultural land	NL	NL	NL	NL	P	P	NL
Bald Eagle	<i>Haliaeetus leucocephalus</i>	PD	E, FP	NA	Seacoast, islands, sea cliffs, large lakes, large rivers, coastal lagoons	P	P	P	P	P	P	NL
Ferruginous hawk	<i>Buteo regalis</i>	SC	SC	NA	Undisturbed grassland and agricultural areas (winter)	NL	NL	NL	P	P	P	NL
Northern harrier	<i>Circus cyaneus</i>	-	SC	NA	Nests and forages in salt marsh, freshwater marsh, and grassland habitats.	P	P	P	P	P	P	NL
White-tailed kite	<i>Elanus leucurus</i>	SC	FP	NA	Nests among dense-topped trees; forages in open grasslands, meadows or marshes	P	P	P	P	K	P	NL
American peregrine falcon	<i>Falco peregrinus anatum</i>	D	E	NA	Nests on cliff ledges, particularly near shores and marshes	P	P	P	NL	NL	P	NL
Swainson's hawk	<i>Buteo swainsoni</i>	-	T	NA	Nests in the Central Valley within riparian areas and oak woodlands as well as isolated roadside trees close to grassland or agricultural foraging habitat; winters in Mexico, Central and South America.	NL	NL	NL	P	K	K	P

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		Federal	State	CNPS		Segments						
						1	2	3	4	5	6	7
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	T	-	NA	Sandy coastal beaches, salt pans, coastal dredges spoils sites, dry salt ponds, salt pond levees	NL	NL	NL	NL	NL	NL	NL
Mountain plover	<i>Charadrius montanus</i>	PT	-	NA	Winters primarily within the Central and Imperial Valleys of California within cultivated fields and grasslands.	NL	NL	P	P	P	P	NL
Long-billed curlew	<i>Numenius americanus</i>	SC	SC	NA	Intertidal mudflats of large estuaries, upland herbaceous areas, and cropland (winter)	P	P	P	P	NL	NL	NL
Black tern	<i>Chlidonias niger</i>	SC	SC	NA	Nests near freshwater lakes, ponds, marshes and flooded agricultural fields; at coastal lagoons and estuaries during migration.	NL	NL	P	P	P	P	NL
California black rail	<i>Laterallus jamaicensis coturniculus</i>	SC	T, FP	NA	Tidal salt marshes, freshwater and brackish marshes.	P	P	P	P	NL	NL	NL
California clapper rail	<i>Rallus longirostris obsoletus</i>	E	E, FP	NA	Salt marshes dominated by pickleweed and cord grass	K	P	P	P	NL	NL	NL
Lewis' woodpecker	<i>Melanerpes lewis</i>	SC	-	NA	Open pine-oak woodlands, coniferous forests, and riparian woodlands. Prefers burned and logged woodlands.	NL	NL	NL	NL	NL	NL	NL
Black swift	<i>Cypseloides niger</i>	SC	SC	NA	Mountains and coastal cliffs	NL	NL	NL	NL	NL	NL	NL
Bank swallow	<i>Riparia riparia</i>	SC	T	NA	Riparian vegetation, vertical banks or cliffs near streams, rivers, lakes, and oceans	NL	NL	NL	NL	NL	P	NL
California least tern	<i>Sterna antillarum</i>	E	E	NA	Nests in flat, open areas along the coast near inshore estuaries, river mouths, or shallows, sandy ground with little or no vegetation, bays, freshwater ponds, channels, lakes. Closest known nesting colony is located at the Pittsburg PG&E plant (Goals Project 2000).	P	NL	P	P	NL	NL	NL

Appendix 1B. Special Status Species Occurrences within the Project Area (cont.)

Common Name	Scientific Name	Status			Associated Habitat and/or Flowering Period	Occurrence within the Project Area						
		Federal	State	CNPS		Segments						
						1	2	3	4	5	6	7
Western burrowing owl	<i>Athene cunicularia</i>	SC	-	NA	Short-grass prairie and open space; associated with burrowing mammals such as ground squirrels	P	P	P	K	K	K	P
Short-eared owl	<i>Asio flammeus</i>	SC	SC	NA	Meadows, grasslands, wetlands, irrigated land	P	P	P	P	P	P	NL
Northern spotted owl	<i>Strix occidentalis caurina</i>	T	SC	NA	Old-growth forests or mixed stands of old-growth and mature trees.	NL	NL	NL	NL	NL	NL	NL
Vaux's swift	<i>Chaetura vauxi</i>	SC	SC	NA	Redwood and Douglas fir forests with hollow trees and snags	NL	NL	NL	NL	NL	NL	NL
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	-	E	NA	Nests in riparian forest, along broad, lower flood bottoms of large river systems.	NL	NL	NL	NL	P	P	NL
California thrasher	<i>Toxostoma redivivum</i>	SC	-	NA	Chaparral vegetation along coast and foothills	NL	NL	NL	NL	NL	NL	NL
Rufous hummingbird	<i>Selasphorus rufus</i>	SC	-	NA	Valley and foothill woodland, hardwood-conifer forest, riparian woodland, and chaparral during migration	NL	NL	NL	NL	NL	NL	NL
Allen's hummingbird	<i>Selasphorus sasin</i>	SC	-	NA	Brushy slopes, chaparral, thickets and open coniferous forests	NL	NL	NL	NL	NL	NL	NL
Costa's hummingbird	<i>Calypte costae</i>	SC	-	NA	Desert scrub	NL	NL	NL	NL	NL	NL	NL
Loggerhead shrike	<i>Lanius ludovicianus</i>	SC	SC	NA	Open canopied valley and foothill hardwood, riparian; urban areas	P	P	P	P	P	P	NL
Little willow flycatcher	<i>Empidonax trailii brewsteri</i>	-	E	NA	Riparian habitat, dense willow thickets edging wet meadows or ponds (not specific to subspecies)	NL	NL	NL	NL	P	P	NL
Saltmarsh common yellowthroat	<i>Geothlypis trichas sinuosa</i>	-	SC	NA	San Francisco Bay region in fresh and saltwater marshes with thick continuous cover to water surface, tall grasses, tule patches and willows for nesting.	P	P	P	P	NL	NL	NL
Tricolored blackbird	<i>Agelaius tricolor</i>	SC	SC	NA	Open valleys and foothills in streamside timber, alfalfa and rice fields, blackberry thickets, tules and cattails on and around marshes and reservoirs	P	P	P	P	P	P	NL

Appendix 1B. Special Status Species Occurrences within the Project Area (cont.)

Common Name	Scientific Name	Status			Associated Habitat and/or Flowering Period	Occurrence within the Project Area						
		Federal	State	CNPS		Segments						
						1	2	3	4	5	6	7
Grasshopper sparrow	<i>Ammadramus savannarum</i>	SC	-	NA	Grasslands, meadows, fields, pastures	P	P	P	P	P	P	NL
Suisun song sparrow	<i>Melospiza melodia maxillaris</i>	SC	SC	NA	Intermixed stands of bulrush (<i>Scirpus</i> spp.), cattail (<i>Typha</i> spp.), and other emergent vegetation	K	K	P	P	NL	NL	NL
San Pablo song sparrow	<i>Melospiza melodia samuelis</i>	SC	SC	NA	Intermixed stands of bulrush (<i>Scirpus</i> spp.), cattail (<i>Typha</i> spp.), and other emergent vegetation IN San Pablo Bay	NL	NL	NL	NL	NL	NL	NL
Lawrence's goldfinch	<i>Carduelis lawrencei</i>	SC	-	NA	Valley foothill hardwood, valley foothill hardwood-conifer	NL	P	NL	NL	NL	NL	NL
MAMMALS												
Pacific western big-eared bat	<i>Corynorhinus townsendii townsendii</i>	SC	SC	NA	Humid coastal regions; roosts include caves, mines, buildings, swallow nests, and under bridges	NL	NL	NL	NL	NL	NL	NL
Greater western mastiff bat	<i>Eumops perotis californicus</i>	SC	SC	NA	chaparral-type areas with rock walls and low-growing vegetation, or trees	NL	NL	NL	NL	NL	NL	NL
Small-footed myotis bat	<i>Myotis ciliolabrum</i>	SC	-	NA	Arid woody or brushy uplands, near water, west and east sides of Sierra Nevada	NL	NL	NL	NL	NL	NL	NL
Long-eared myotis bat	<i>Myotis evotis</i>	SC	-	NA	Brush, woodland and forest habitats; widespread in California, but avoids the arid Central Valley and hot deserts.	NL	NL	NL	NL	NL	NL	NL
Fringed myotis bat	<i>Myotis thysanodes</i>	SC	-	NA	Piñon-juniper forest, valley and foothill hardwood woodlands and hardwood-conifer forest	NL	NL	NL	NL	NL	NL	NL
Long-legged myotis bat	<i>Myotis volans</i>	SC	-	NA	Woodlands, forests, chaparral, coastal scrub	NL	NL	NL	NL	NL	NL	NL
Yuma myotis bat	<i>Myotis yumanensis</i>	SC	SC	NA	Open forests and woodlands near water	P	P	P	P	P	P	P
San Francisco dusky-footed woodrat	<i>Neotoma fuscipes annectens</i>	SC	SC	NA	Riparian woodland, hardwood forest, chaparral (not specific to subspecies)	NL	NL	NL	NL	NL	NL	NL
Suisun ornate shrew	<i>Sorex ornatus sinuosus</i>	SC	SC	NA	Tidal marshes of the northern shores of San Pablo and Suisun Bays.	K	K	K	P	NL	NL	NL

Appendix 1B. Special Status Species Occurrences within the Project Area (cont.)

Common Name	Scientific Name	Status			Associated Habitat and/or Flowering Period	Occurrence within the Project Area						
		Federal	State	CNPS		Segments						
						1	2	3	4	5	6	7
San Joaquin pocket mouse	<i>Perognathus inornatus inornatus</i>	SC	-	NA	Grasslands and blue oak savannas	K	P	P	P	K	P	NL
Riparian woodrat	<i>Neotoma fuscipes riparia</i>	E	SC	NA	Brushy habitats with scattered trees; only verified population today is along the Stanislaus River	NL	NL	NL	NL	NL	NL	NL
Salt marsh harvest mouse	<i>Reithrodontomys raviventris</i>	E	E, FP	NA	Coastal salt marsh, dense stands of pickleweed	K	K	K	P	NL	NL	NL
Riparian brush rabbit	<i>Sylvilagus bachmani riparius</i>	E	E	NA	Valley riparian forest, brushy riparian vegetation; the largest remaining fragment of habitat and only extant population are found along the Stanislaus River	NL	NL	NL	NL	NL	NL	NL

Source: URS, 2002c and 2002d.

NOTES:

Occurrence within the Project Area

NL = Not Likely to Occur, Not considered in EIR

P = Potential to Occur

K = Known to Occur

Federal Status Codes:

E = Endangered. Species in danger of extinction throughout all or a significant portion of its range.

T = Threatened. Species likely to become endangered within the foreseeable future.

PE = Proposed for listing as endangered.

PT = Proposed for listing as threatened.

PD = Proposed for delisting.

C = Candidate for listing.

SC = USFWS Species of Concern (an informal designation)

California Status Codes:

E = Endangered. Species whose continued existence in California is in jeopardy

T = Threatened. Species likely to become endangered within the foreseeable future.

R = Rare. Plant species, although not presently threatened with extinction, that may become endangered in the foreseeable future.

FP = Fully protected under the California Fish and Game Code

SC = Species of Special Concern

California Native Plant Society Status Codes (CNPS 2001):

1A = Plants presumed extinct in California

1B = Plants that are rare, threatened or endangered in California and elsewhere.

2 = Plants that are rare, threatened or endangered in California, but more common elsewhere.

3 = Plants about which more information is needed.

4 = Plants of limited distribution

NA = Not Applicable